

Appl. No. 09/975,797
Amdt. dated March 29, 2005
Reply to Advisory Action of March 17, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (previously presented): A corrosion resistant brine fluid comprising:

water;

a source of water soluble cations where the cations are selected from the group consisting of sodium, calcium, zinc, ammonium, rare earths, and mixtures thereof to form a brine with the water; and

an additive present in a concentration ranging from about 0.05 to about 2.0 moles of additive per mole of cation, in the absence of added arsenic;

where the density of the brine is at least 11 pounds/gal (1.3 kg/l), and where the additive is selected from the group consisting of ammonia, hydrazine, azoles, piperidines, piperazines, aziridines, azides, betaines, amino acids, guanidines, salts of hydrazine, azoles, piperidines, piperazines, aziridines, azides, betaines, amino acids, ureas, guanidines, thereof, and mixtures thereof.

2. (canceled)

3. (previously presented): The corrosion resistant brine fluid of claim 1 where the source of water soluble cations is a salt selected from the group consisting of chloride, bromide, acetate, and formate salts.

4. (original): The corrosion resistant brine fluid of claim 1 where the source of water soluble cations is a source of water soluble zinc cations.

5. (previously presented): The corrosion resistant brine fluid of claim 4 where the source of water soluble zinc cations is selected from the group consisting of zinc chloride and zinc bromide.

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6.-9. (cancelled)

10. (original) The corrosion resistant brine fluid of claim 1 further comprising at least one additional corrosion inhibitor.

11. (original) The corrosion resistant brine fluid of claim 1 further comprising at least one hydroxy carboxylic acid complexing agent.

12. (cancelled).

13. (currently amended) A method for increasing the corrosion resistance of a brine fluid comprising:

providing a brine comprising ;

water;

a source of water soluble zinc cations to form a brine with the water; and

adding an additive to a concentration ranging from about 0.05 to about 2.0 moles of additive per mole of cation, in the absence of added arsenic;

where the density of the brine is at least 11 pounds/gal (1.3 kg/l), and where the additive is selected from the group consisting of ammonia, hydrazine, piperidines, piperazines, aziridines, azides, betaines, amino acids, guanidines, salts of hydrazine, piperidines, piperazines, aziridines, azides, betaines, amino acids, guanidines, and mixtures thereof.

14. (cancelled)

15. (currently amended) The method of claim 13 where in providing the brine the source of water soluble anions is a salt selected from the group consisting of chloride, bromide, acetate, and formate and mixtures thereof.

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16. (cancelled)

17. (previously presented): The method of claim 15 where in the brine the source of water soluble zinc cations is selected from the group consisting of zinc chloride and zinc bromide.

18.-21. (cancelled)

22. (original) The method of claim 13 further comprising adding at least one additional corrosion inhibitor.

23. (original) The method of claim 13 where in adding the additive, the additive is added in a controlled manner by contacting the brine with the additive in a vapor.

24. (original) The method of claim 13 further comprising adding at least one hydroxy carboxylic acid complexing agent.

25. (cancelled)